Sectt. II-27—104.008—4-11-4

P. W. (195/) Department

Ms. SERIES.

G.O. NO. 2163

Dated 24-5-51

Closed

SE 8/6/51

Supt.

[Despatch Abstract.]

Electricity — South Kanara Distt. — Udipi Thermal Scheme — Supply to Karkala and Udipi — Improvement — Estimate Rs. 14,460/- Approved.

C.No. 9392-B/51
5-3-51

GOVERNMENT ELECTRICITY DEPARTMENT.

From
The Chief Engineer for Electricity,
157, Mount Road,
M A D R A S.

To
The Secretary,
to Government, Public Works Dept.
Fort. St. George,
M A D R A S.

2533 I/50-10

No.E.3/A.3/ R.1/ E.101/50-51 Dated Feb 26th.1951.

Sir,

Sub: Electricity-Supply in South Kanara District-Suggestions by the Kanara Chamber of commerce for Improvement-Karkala Thermal Scheme.

Ref: P.W.D. Memo. No. 1586/P/49-2 D/19-5-1949.

G.O. No. 371 D/N.
25.1.51

I forward herewith a proposal for improving the supply at Karkala in South Kanara District.

The Karkala area is at present served by the Udipi Electric Supply Corporation Ltd., A scheme for acquiring and improving the Udipi Electrical undertaking was submitted to Government in my No. E.3/A.3/R.2533/50-2 D/28-9-'50 and has been sanctioned in G.O. No. 371 D/25-1-1951. Therein the cost of acquiring the Karkala Power House and lines has also been included but improvement of Karkala area was not included. A separate scheme for improving Karkala area was proposed to be sent. (vide page 2 of Scheme report on Udipi Electrical undertaking) Accordingly this is now done.

2) The scheme is estimated to cost Rs.61,700/- initially and Rs.88,460/- at the end of the 3rd year of operation. The net revenue anticipated at the end of the 3rd year is Rs.3790 and this yields a net return of 4.29% on the total capital outlay. The scheme is therefore remunerative.

3) The present power position at Karkala is unsatisfactory as there is neither generating capacity to meet the waiting loads nor any spare Engine set for maintaining continuity of supply in the event of breakdown of the existing old generator set. There is public agitation for better supply condition and expansion as the development in this area has been practically at a standstill for a long time. Hence the scheme is recommended for early sanction.

4) I also request that sanction for the staff required for the construction of the scheme may be accorded.

for CHIEF ENGINEER FOR ELECTRICITY.

3 P.W-(9)

Memo No.1392-I/51 -1 & d/ 31-3-51

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Sub:Electricity - Supply to Karkala, Udipi - Improvement scheme

Ref:From the C.E.(E) No.E3/A-3/R-1 E.101/50-51/2533 I/50-10 d/26-2-51.

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In para 4 of the scheme report sent with the C.E.(E)'s letter cited, it is stated that as against the existing connected load of 28 K.W. at Karkala, the proposed load in 3 year period is expected to be 49 K.W. It is presumed that this prospective load includes also the existing load of ~~required to be~~ 28 K.W. The C.E. is requested to state if this presumption is correct and if so to explain how the connected load for domestic purposes is expected to be only 17 K.W. in 3 years as against the existing domestic load of 23 K.W.

2 4

2. In para 9 of the scheme report it is stated that the staff proposed for the Karkala scheme will be attached to the Division proposed under "the Mangalore Electrical Undertaking Acquisition" The attention of the C.E. is invited to his letter No.E5/A3/R.394/2855-G/51-1 d/23-2-51 and he is requested to submit revised proposals in respect of the staff proposed for the Karkala scheme, since the Mangalore thermal scheme is not ~~likely~~ to be taken up at present. ~~sanctioned by the Govt. for the present.~~

27/3/51

27.3.57.

To the C.E.(E).

20.4.57.

GOVERNMENT ELECTRICITY DEPARTMENT
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From
The Chief Engineer for
Electricity,
No.157, Mount Road,
M A D R A S.

To
The Secretary to Government,
Public Works Department,
Fort St. George,
M A D R A S.

No.E3/A3.2533 I/50-11 Dated 24 April 1951.

Sir,

Sub: ELECTRICITY--Supply to Karkala and Udipi Improvement Scheme.
****

Ref: Government Memo No.1392-I/51-1 dated 31.3.1951.
****

The prospective load of 49 K.W. in the 3 year period is the additional load anticipated and does not include the existing load of 28 K.W. The total connected load in the third year period will be 28 + 49 or 77 K.W.

2. The staff proposed for the Udipi and Karkala Schemes were intended to be attached to the Division proposed under the Mangalore Scheme. Since the Mangalore Thermal Scheme is not to be taken up at present, the staff proposed for the Udipi and Karkala Schemes will be attached to the Nilgiris Division of the Pykara System till such time as the Mangalore Scheme is taken up. Thereby the controlling Division becomes the existing Nilgiris Division instead of the Mangalore Division and no change in the sub-divisional and sectional staff arises. Therefore the sectional staff asked for Karkala does not require any revision.

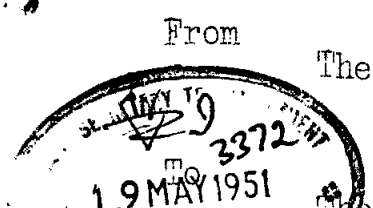
(3)

CHIEF ENGINEER FOR ELECTRICITY.

GOVERNMENT ELECTRICITY DEPARTMENT.

From

The Chief Engineer for Electricity,
157, Mount Road, Madras.2.



The Secretary to Government,
Public Works Department,
Madras.

No.2533 I/50-1, dated 16-5-1951.

Sir,

Sub: Electricity - Supply in South Kanara District - Suggestions by the Kanara Chamber of Commerce for Improvement - Karkala Thermal Scheme.

I invite reference to my letter No.2533 I/50-10, dated 26-2-1951 on the above subject and request early orders of Government sanctioning the scheme.

for Chief Engineer for Electricity.

ARK/17-5-

9 P..(I)

G.O.Ms.No. 2163 d/ 24.5.51

(South Kanara Dt — Udipi thermal scheme)

Electricity - Supply to Karkala and Udipi - Improvement - Estimate Rs.88,460/- Approved.

Read:

G.O.Ms.No.371 Public Works d/25-1-51
From the C.E.(E) No.E3/2533 I/50-11 d/24-4-51 (A3)

His Excellency the Governor of Madras hereby approves the estimate for Rs.61,700/- (Rupees sixtyone thousand seven hundred only) initially, rising to Rs.88,460/- (Rupees eighty eight thousand fourhundred and sixty only) in three years for improving the supply of electricity at Karkala in South Kanara Dist.

2. The expenditure is debitable to "81.A.Capital outlay on Elecy. Schemes - II. Thermo Electric Schemes (excluding Post War Reconstruction) - Udipi Thermal Scheme".

3. Orders on the proposal of the C.E.(E) for employment of additional staff required for construction, operation and maintenance of the scheme sanctioned in para 1 above will be issued separately.

JNS 12/5/51

DM 15-5-51

ee 14-5-51.

To the C.E.(E)
" A.G. thro' Fin.
Copy to E section with reference to para 3 with extracts of p.m. 4 p. 1 c.f. para 2 p.5 c.f. paras 9 and 10 pp.5-7 (U) para 3 p. 3 N.F. and para 2 p. 6 N.F. (deleted)

2 S.Cs.

GOVERNMENT OF MADRAS

1392
5-3-51

DEPARTMENT OF ELECTRICITY

SCHEME REPORT

IMPROVEMENT OF

KANARA CHAMBER OF COMMERCE

SOUTH KANARA DISTRICT

Pykara System

Cost Rs.88,460.

MADRAS,

*Dated*_____ 19 .

KARKALA THERMAL SCHEME.

(South Kanara District).

(Scheme Report.)

1. Scope. The Karkala area is at present being served by the Udipi Electric Supply Corporation Limited. The undertaking commenced operation on 17-8-'41 some time after supply at Udipi was started, with a single old small oil engine set. The undertaking is proposed to be acquired in June vide endorsement No. 2969-C/50-2 D/8-1-1951.

This report deals with the proposal to erect one new generating set in the Karkala Power House after the Licencees' undertaking is acquired by Government as also shifting and re-erecting the 40 KVA Diesel alternator belt driven set now running at the Udipi Power House and carrying out necessary repairs to the existing generating unit together with extension and Improvement to the cooling water and fuel oil systems and distributing mains etc.

2. Scheme.

The oil engine driven Power House at Karkala has at present a belt driven generator set with a 26 H.P. Engine and a 20 KW generator. This belt driven unit is very old. The present peak on the station is 16 KW which is also the limit of the load which the Engine can safely take and supply is maintained only for 6 hours in the day. There is no standby plant at present available and a break down of the only set would cause total failure of supply. The development in the area has been at a stand still in the last decade. The public are very eager to take more supply. Jog power will not be available in South Kanara area, before 1954. The oil engine station has to be operated until then and installation of additional diesel capacity in it will develop the load in the area.

The proposal is to instal a new generating set in the Karkala Power House after taking over both generation and distribution of the Udipi Electric Licence. Soon after new sets are installed at Udipi Power House, the 40 KVA belt driven set at Udipi Power House will be shifted and erected at Karkala Power House and the existing 26 H.P. set will be overhauled and repaired. It is proposed within the first 3 years of operation to extend L.T. distribution mains over 2½ miles and effect supply to domestic, small industrial and cinema loads numbering in all about 100 services and also carry out extension for street lighting.

There is adequate space in the Karkala Power House to accommodate the two engines now proposed. Necessary improvement to the fuel oil systems and cooling water systems will also be carried out.

3. Estimates:

An abstract of estimates for initial and ultimate expenditure is given in Statements II and III. The rates assumed in the estimate are as per the present day market rates for various materials.

Contd....

No provision is made for compensation payable to the licensee as this has been already included in the Udipi Scheme.

The capital expenditure is estimated at Rs.61,700 initially rising to Rs.88,460 at the end of the 3rd year of operation.

4. Load Forecast.

The existing and prospective connected loads in the first 3 years of operation are given below:

	Existing.	Prospective load in 3 year period.
Domestic ...	23 KW	17 KW
Street lighting...	2 KW	2 KW
Small industries..	3 KW	25 KW
Cinema ...	-	5 KW

A maximum demand of 32 KW is expected in the third year of operation and the proposed extension to the Power House would be adequate to ~~the Power House~~ meet this demand.

Statement I shows the load and revenue forecast.

5. Revenue Forecast.

Statement IV gives the financial forecast for the 3 year period. The following assumptions have been made as usual for such

(1) Interest at 4% on capital.
(2) Operation and Maintenance at 3%.
(3) Depreciation at 3½%.

The financial results at the end of the 3rd year will be as Below:

Capital outlay at the end of the 3rd year.	Rs.88,460/-
Net Revenue in the 3rd year.	Rs. 3,793/-
Net Revenue as % of capital	$\frac{3793 \times 100}{88460}$ =-4.29%

No credit is allowed in the above forecast for the Diesel Engine sets which may be released for use elsewhere when Jog Power is available in the area. In the event of Jog Power being available before the end of the 3rd year which is not a remote possibility, the financial position will improve further as the cost of Hydro Electric Power will be much cheaper.

Contd...

6. Load Factor:

A load factor of 30% in the first year rising to 32% in the 3rd year of operation is assumed. This is reasonable.

7. Cost of Fuel.

The licensee is at present obtaining his supplies of fuel and lubricating oils via. Ernakulam. Owing to devaluation, costs of fuel and lubricating oils have gone up recently. The cost of fuel oil works out to about Rs.270/- per ton at licensee's Power House at Karkala. Based on guaranteed fuel consumption particulars of similar sets and on the present day costs of fuel and lubricating oils, the cost of fuel and lubricating oil per unit generated has been taken as 1.65 annas. Possibility of obtaining supplies of fuel and lubricating oil in sterling areas cannot be ruled out and when such supplies are received the cost may get considerably reduced than assumed.

8. Tariffs and Revenue:

As pointed out in the Udipi Scheme the existing rates of supply of the undertaking with a 50% surcharge cannot be considered high in view of the fact that the area is out of the way and requires long transport of fuel oil. The licensee was till recently permitted a surcharge at 50%. But this has been enhanced to 100% in G.O. Rt. No.664 dated 12-6-1950 permitting levy from July consumption. The present forecast is based on existing rates with a 50% surcharge only as was done under the Udipi Scheme. The existing rates with a 50% surcharge can be continued for one year after which the position may be reviewed with a view to see if the percentage surcharge can be reduced.

9. Staff. The staff required for the construction and operation periods are as below:

Name of Staff.	Construction.	Operation.
Field.		
1. Supervisor II Grade.	-	1
2. Store-Keeper Cum bill collector.	1	1
3. Peon.	1	1
Central Office.		
4. Lower [illegible] Clerk.	1	1

The probable cost of the staff as above would be Rs.2940 per year in the construction period and Rs.5100 per year in the operation period.

The staff required for construction may be sanctioned for a period of 6 months and the staff for operation as a permanent measure. The staff that may be taken over on the acquisition of the Karkala undertaking if found suitable, will be counted against any sanction for staff for operation of the scheme. The section is proposed to be attached to the Division proposed under "The Mangalore Electrical Undertaking Acquisition" sent separately.

Contd ....

10. Construction Programme.

The construction is expected to be completed within a period of 6 to 8 months from the date of acquisition of the Udipi Electric Licensees undertaking.

11. Conclusion.

The scheme is recommended for very early sanction for the following reasons.

1. The scheme is remunerative yeilding a net return of 4.29% on the capital outlay.

2. The Power position at Karkala is not satisfactory and there is clamour for more power.

3. Possible breakdown of the only set in the Power House would result in total failure of supply.

4. Development of the area has been at a standstill for over a decade.

5. The area will get developed well ahead of the availability of jog power.

Encl: Statements
I to IV.

STATEMENT I.

KARKALA THERMAL SCHEME -- SOUTH KANARA DISTRICT

LOAD AND REVENUE FORE-CAST.

Particulars.	Construction period.	Year of Operation. I	II.	III.
1.	2.	3.	4.	5.
1. Demand in KW. in Power House.	16 K.W.	26 K.W.	29 K.W.	32 K.W.
2. Rate of Revenue in Rs./K.W. year (inclusive of 50% surcharge)		Rs.570	Rs.570	Rs.570
3. Total Revenue for the Year in Rs.		Rs.14,820/-	Rs.16,530/-	Rs.18,240/-
4. Load Factor %		30	31	32
5. Units generated.		68,300	78,750	89,700
Cost of fuel per unit in annas.		1.65	1.65	1.65
Total cost of fuel per year in Rs.		7,040	8,120	9,250

STATEMENT III.

KARKALA THERMAL SCHEME - SOUTH KANARA DISTRICT.
ABSTRACT OF ESTIMATE.

Particulars.	Construction Period Rs.	Years of Operation. I. Rs.	II. Rs.	III Rs.
1.	2.	3.	4.	5.
A. Generating Station.	35,000.	-	-	-
B. Distribution.	15,225	7,925	6,925	6,925
Sub-Total	50,225	7,925	6,925	6,925
Contingencies 5%	2,510	400	350	350
Establishment and Supervision.	52,735	8,325	7,275	7,275
Charges and Tools and Plants. 17%	8,965	1,415	1,235	1,235
Total....	61,700 +	9,740 +	8,510 +	8,510 :
				88,460

STATEMENT II.

KARKALA THERMAL SCHEME (South Kanara District)

DETAILED ESTIMATE.

Particulars.	Construction Period. Rs.	Year of Operation. I.	II	III
1.	2.	3.	4.	5.
A. Generating Station: Grounds & Buildings:				
1 No. 40 KW 400V Diesel generator set with control panels etc.,	30,000	-	-	-
Dismantling the 40 KVA belt driven set at Udipi Power House, transport and erection at Karkala Power House.	3,000	-	-	-
Station Auxiliaries:				
Improvement to oil storage Cooling Water Systems.	2,000	-	-	-
B. Distribution.				
1) Feeders Erected. L.T. 3 phase 4 wire line with No.4 copper for phase, No.6 copper for neutral and No.8 copper for Street lighting.	8,500	4,250	4,250	4,250
(1)mile during construction period and ½ mile in each year of operation at Rs.8,500/- per mile)				
(2) Services erected.				
Industrial - 2 Nos. in construction period and 1 in each year of operation at Rs.300/- each.	600	300	300	300
Domestic:				
37 Nos. in Construction period and 19 Nos. in each year of operation at Rs.125/- each.	4,625	2,375	2,375	2,375
Cinema: 1 No. at Rs.500/-	500	-	-	-
Street lighting: 25 Nos. during the construction period and 25 Nos. during the Ist year of operation at Rs.40/- each.	1,000	1,000	-	-

50,225 + 7925 + 6,975 + [illegible]

72 000

STATEMENT IV.

KARKALA THERMAL SCHEME - SOUTH KANARA DISTRICT.

FINANCIAL FORECAST.

Year of Operation.	Capital Expenditure up to the end of year	Capital Expenditure during the year.	Interest on capital at 4% of Col. (2) & 2% of col. (3) Rs.	cost of fuel and lubricating oil/year. per	Operation and maintenance charges at 3% of column (2) Rs.	Depreciation at 3½% of col. (2) Rs.	Total expenditure column 5+6+7 Rs.	Gross Revenue per year. Rs.	Net Revenue column 9-8 Rs.	Surplus after deducting interest charges column 10-4 Rs.	Accumulated surplus or deficit. Rs.
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
Construction Period.	-	61,700	1,234	-	-	-	-	-	-(-) 1,234	(-) 1,234	
I. Year of Operation.	61,700	9,740	2,663	7,040	1,851	2,160	11,051	14,820	3,769(a)	1,106	(-) 128
II. Year.	71,440	8,510	3,028	8,120	2,143	2,500	12,763	16,530	3,767(b)	739	(-) 611
III. Year.	79,950	8,510	3,368	9,250	2,399	2,798	14,447	18,240	3,793(c)	425	(+) 1,036

Capital Expenditure at the end of the 3rd year Rs.88,460

Net Revenue % return. .... Rs.$\frac{3793}{88460}$ x 100 = 4.29%

Sub:Electricity - Supply to Karkala, Udipi - Improvement - Estimate Rs.88,460/-

Ref:From the C.E.(E) No.E3/A3/R1/E101/50-51/2533 I/50-10 d/26-2-51.

The file relates to the proposal submitted by the C.E.(E) for improving the supply of electricity at Karkala in South Kanara District.

2. The Karkala area is at present being served by the licensed company electical undertaking owned by the Udipi Electric Supply Corporation by means of 20 K.W. generator set at Karkala. The Undertaking of the Udipi licensee is one of the undertakings included in the first batch of the acquisition programme. In view of the unsatisfactory supply position in the Udipi licensee's area, the Government have decided to take over the undertaking at an early date and have also served the necessary statutory notice of acquisition on the licensee declaring that the undertaking shall vest in the Government on 1-6-51. They have also sanctioned inG.O.Ms.No. 371 P.W. d/25-1-51, the scheme submitted by the C.E.(E) for acquiring and runing the Udipi Undertaking as a Government concern after carrying out the necessary improvements and extensions to it for meeting the immediate and future demand for power in the area in the course of the next 5 years. This scheme provides also for the cost of acquiring the Karkala Power House and lines belonging to the Udipi licensee, but does not provide for the cost of carrying out improvements to the Karkala Power house for improving the supply position in the area. The C.E. has accordingly submitted the present scheme which provides for the installation of an additional generating set at Karkala and improving the supply position in and around Karkala. It has been prepared on a "three year" net return basis and the report at (U) gives full details regarding the scheme. It is estimated to cost Rs.61,700/- initially and Rs.88,460/- at the end of the third

year of operation. The C.E.(E) has stated that the present power position at Karkala is unsatisfactory and that there is public agitation for better supply condition and expansion as the development in this area has been practically at a standstill for a long time. The following points deserve attention:--

Load and Revenue forecast:- The existing connected load of the Karkala Power House is 28 K.W. and it is expected that the prospective load in 3 years time will be 49 K.W.- vide para 4 on p. 3 of the report at (u). It is presumed that this prospective load of 49 K.W. includes also the existing connected load of 28 K.W. The C.E.(E) may be requested consulted on this point and also to explain if this presumption is correct, how the domestic load in the 3rd year of working of the scheme is expected to be only 17 K.W. as against the existing domestic load of 28 K.W. As the present peak load, which the existing engine can safely take is only 16 K.W. it is proposed to augment the capacity of the Karkala station by diverting one 40 K.V.A. set from Udipi after the undertaking is acquired by the Government. The present estimate also provides for repairing and overhauling the existing set at Karkala. The C.E.(E) has proposed that the existing tariff of the Udipi Electric licensee, together with a 50% war costs surcharge, may be continued at Karkala as against the 100% surcharge now being levied by the licensee. This principle has already been agreed to in connection with the Udipi scheme and this may be accepted in the case of Karkala also. The C.E.(E) has stated that a revenue of Rs.570/- per K.W. year is assumed and that in the event of Jog power becoming available before the end of the third year of the scheme, the financial position will improve further as the cost of Hydro-Electric power will be cheaper.

Interest - This is calculated at 4% and is in order.

Operation and maintenance - A rate of 3% has been adopted as usual.

Depreciation - A rate of 3½% has been adopted.

Return - A net revenue of Rs.3793 is anticipated in the third year of operation, yielding a return of 4.29% on the total sum at charge, i.e. Rs.88,460/-. The scheme will therefore be remunerative.

3. The C.E.(E) has stated that the construction work may be completed within a period of 6 to 8 months from the date of acquisition of the Udipi Electric Licensee's undertaking. As the power position at Karkala is unsatisfactory and as there is lot of public agitation, the C.E.(E) requests early sanction for the scheme. He has also requested sanction for the staff required for construction and operation purposes as set out in para 9 of the scheme report at p.5 of (U). He has proposed to attach the proposed Section to the Division proposed under, "The Mangalore Electrical Undertaking Acquisition" Scheme. It is submitted that the proposal submitted by the C.E.(E) for the acquisition of the Mangalore Electrical Undertaking, which is included in the second batch of the acquisition programme, is not likely to be sanctioned by the Government immediately. The C.E.(E) who was advised of this, has submitted proposals for sanction of Government for placing orders for an additional set of 500 K.W. capacity required for Mangalore, in lieu advance of the scheme referred to at A above and this is under consideration separately. In view of this, the Division proposed by him in connection with the Mangalore scheme may not materialise.

This may be pointed out to the C.E.(E) and he may be requested to submit ~~the~~ a revised proposal in respect of the staff required for the Karkala scheme. After receipt of his reply, separate action may be taken on the staff proposals for which necessary extracts may be given to R section.

4. Submitted for orders whether the scheme for improvement of the Karkala Power House at an estimated cost of Rs.61,700/- initially, and Rs.88,460/- at the end of 3 years

years, may be approved. It seems that this case need not be treated as a "New Service" as the expenditure is below Rs. 1 lakh.

5. With reference to X on p. 2 ante, and Y (on p. 3 ante) above, a draft memo to the C.E.(E) is submitted. After issue, the file may be sent to Finance for remarks.

[X Issued as Memo. No. 1392-P/51-1 dt 31-3-51]

Finance(P.W.R.)

In G.O. Ms. 271 P.W. dated 25-1-51, sanction was accorded for acquiring and improving the Udipi Electrical Undertaking which included provision for the cost of acquiring the Karkala Power House. The C.E(Elecy.) has now submitted proposals for the installation of a new generating set to the Karkala Power House and improvement of the supply position in and around Karkala. The scheme is prepared on a three-year "net return" basis, and the financial effect of the proposal is as shown below:-

	Rs
Initial estimated cost ..	61,700
Capital outlay at the end of the 3rd year ..	88,460
Net return in the 3rd year ..	3,793
Net revenue as percentage of capital ..	4.29%
Standard return prescribed for productive electricity schemes ..	4%

The scheme is remunerative. The C.E(Elecy.) requests early sanction for the scheme as the power position at Karkala is unsatisfactory and as there is lot of public agitation for better supply condition. P.W. support the C.E(Elecy.)'s proposal. Finance may agree.

2. The proposal to continue existing tariff of the Udipi Electric Licensee together with 50% war costs surcharge at Karkala (which principle has already been agreed to) and the usual provision made for interest (4%), operation and

maintenance (3%) and depreciation (3½%) do not call for any special remarks in Finance. The C.E(Elecy.) has been asked to submit revised proposals in respect of the staff required for the scheme and they will be dealt with separately.

(The present proposal is not a "New Service".)

Please see the notes of Fin on pp.4-5 above. The proposal in para 4 on pp.3-4 ante has been accepted by Fin. They have stated that the present proposal is not a "New Service". Reply of the C.E(E) with reference to the memo. on pp.3-4 C.F. has not been received. It may be awaited till 20.4.51 as already ordered

From the C.E.(E) No.E3/A3/2530-I/50-11 d/24-4-51

The file relates to the proposal submitted by the C.E.(E) for improving the supply of electricity at Karkola in South Kangra Dist. at an estimated cost of Rs.61,700/- initially rising to Rs.88,460/- at the end of the third year of operation. The proposal is explained in this Dept's notes at pp.1-4 ante. As regards X on 2 ante the C.E.(E) has stated that the prospective load of 49 K.W. in the 3 year period is the additional load anticipated and does not include the existing load of 28 K.W. and that the total connected load will therefore be 77 K.W. in the third year.

(2) 6

2. With reference to Y on p. 3 ante the C.E.(I) has stated that since the Mangalore Thermal Scheme is not to be taken up at present, the staff proposed for the Udipi and Karkala Schemes will be attached to the Nilgiris Division of the Pykara System till such time, as the Mangalore scheme is taken up and that no change in the subdivisional and sectional staff arises. He has ~~requested~~ stated that the staff asked for Karkala does not require any revision. Separate action may be taken on the staff proposals for which necessary extracts may be given to R section. [The scheme referred to at A on p. 5 ante has been accepted in this Department and the Finance Department. They have stated that the present proposal is not on a "New Service". A draft order is submitted for approval. file may see.

para 2 p. 5 c/ para 9 p. 5 (a)

JRE 12/5/51

DK 15551

AS 3 15/5/51 16/5/51

14.5.51

Secn. Off. 14/5/51

R Secn 14/5/51

From (P.W.D.,

P.W.D.
No. 1392-J/51-3
16.5.51

[Extract seen in From on pp. 4-5 above]

The draft order below may be accepted and the file returned to the P.W. Deptt.

PB 16.5.51

BL 18.5.51

BL 1855 PWD.

ADDITIONAL DEPUTY SECRETARY 3757 17 MAY 1951 PWR. FINANCE DEPARTMENT

ASST. SECRETARY 1 MAY 1951 3345 PUBLIC WORKS DEPARTMENT

From U.O. 37572-PWR/51-1
21-5-51

P.W.(J)

The draft order below may be issued.

JRE 21/5/51

DK 22/5/51

Issued as G.O. M. No. 2163 P.W.-J 24-5-51.